TANDBERG DATA
Securing your Information

Making an Impact with Data Storage

Data Protection Solutions Guide

Securing Your Data

Tandberg Data Corporate Highlights

Tandberg Data is a leading global supplier of data protection solutions for small and medium-sized businesses. These products include an assortment of drives, systems, appliances and libraries based on disk, tape, removable disk and software for data storage, backup, archiving and disaster recovery. The company's wide range of storage solutions, which are easy to use and cost effective, help companies protect their data, increase productivity and improve business continuity.

With 30 years of success in meeting the ever-changing data storage needs of our customers, Tandberg Data continually augments its product portfolio with solutions that provide added reliability, scalability, removability, performance, security and capacity. In-house development, numerous patents, ongoing R&D efforts and a deep knowledge of our customer base provide the foundation for ongoing innovation and corporate success.

Tandberg Data prides itself on partnering with top tier channel integrators and major OEMs, such as IBM, HP, Fujitsu, Toshiba, Hitachi, Maxell, NEC and Lenovo. We support our customers through a worldwide service and support network, providing warranty and support and on-site service upgrades for further peace of mind.

The company operates regional headquarters in Germany, the United States and Singapore, has additional offices in Norway, Hong Kong and Japan, and a global sales presence. Its manufacturing and repair facilities in China follow stringent quality standards and respond quickly to customer orders.

Tandberg Data will continue to develop, manufacture, market, sell and support an array of best-in-class storage solutions that make it easy and economical for organizations to safeguard their most valuable personal, business and financial assets.

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Removable Disk

RDX® QuikStor™

REMOVABLE, ECONOMICAL DATA STORAGE FOR THE SMB

Tandberg Data's RDX® QuikStor™ is a cartridge-based removable disk storage system that offers a rugged, reliable and convenient storage solution for data storage, backup, archive, data interchange and disaster recovery. It combines the best features of tape (convenience, portability, archive life, low cost) with the benefits of hard disk or solid state disk (high performance, random access, high reliability) and meets the performance requirements of users from professional to entry-level enterprise.

STORAGE AWARDS — Disk Product of the Year 2007

Personal Computer World RECOMMENDED

PCAUTHORITY RECOMMENDED

PC PRO RECOMMENDED

Recommended ITR IT Reviews www.itreviews.co.uk

TECHWORLD.COM AWARDS 2007 WINNER

The bundled RDX AccuGuard™ software offers transparent protection of user data and a complete backup of all system and application data. The RDX QuikStor features high performance with up to 650 GB/hr transfer rate and is available in 160GB, 320GB, 500GB, 640GB or 1TB capacities and with 64GB, 128GB, 256GB or 512GB SSD capacities.

RDX media is randomly accessed so stored files can be immediately retrieved without time-consuming sequential seeks. Single files and selected volumes can be restored in seconds.

RDX QUIKSTOR SPECIFICATIONS

MODEL	INTERNAL	EXTERNAL
HDD Capacity	160GB, 320GB, 500GB, 640GB, 1TB	
SSD Capacity	64GB, 128GB, 256GB, 512GB	
INTERFACE	TRANSFER RATES	
	RDX HDD Media	RDX SSD Media
USB 3.0 w/USB 3.0 Host	50-100 MB/s*	180 MB/s*
USB 3.0 w/USB 2.0 Host	32 MB/s*	32 MB/s*
USB 2.0	25 MB/s*	25 MB/s*
SATA	45 MB/s*	45 MB/s*

* Transfer Rate will be determined by the performance of the RDX drive type.

RDX® Advantages

EASE OF USE

Easily drag and drop data files. Simple cartridge load allows easy and complete data storage and backup. The drives are plug-and-play versions with internal (mounted into a server bay) and external (tabletop) models.

RELIABLE, AUTOMATED BACKUP RECOVERY

Easy-to-use software solution for the RDX QuikStor provides “set it and forget it” data protection with up to 20:1 data deduplication.

COST EFFECTIVE AND FUTURE PROOF

The initial setup cost is minimal compared to entry-level tape-based solutions. Drive and cartridges are more durable than other disk solutions, resulting in lower TCO—a truly cost-effective solution that is suitable for SMB users to departmental users.

FASTER BACKUP AND ACCESS

High-performance disk-based speed and access, backing up to 650 GB/hr and near-instant file retrieval.

ULTRA TOUGH AND SUPERSPEED

Take full advantage of SuperSpeed USB 3.0 with the ultra shockproof and rugged RDX SSD cartridges.

RUGGED AND TOUGH

The RDX cartridges are rugged, shockproof and protected from static electricity. HDD cartridges are ideal for archiving, with an archive life of more than 10 years.

What is AccuGuard™?

Tandberg Data AccuGuard™ is a powerful data protection software that delivers reliable, automated backup and recovery utilizing a data deduplication engine designed to increase your effective storage capacity. AccuGuard increases effective data storage by providing up to 20:1 deduplication, intelligently optimizing the data at the source which results in drastically improved backup windows and network bandwidth. Data retrieval is simple and painless with AccuGuard’s flexible file searching, drag-and-drop or right-click restore and point-in-time disaster recovery.

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AccuGuard™

ACCUGUARD SOFTWARE FOR RDX FEATURES	
Up to 20:1 data deduplication	Point-in-time disaster recovery
RDX cartridge manager	Simple user interface
Automated data protection	AES 256-bit encryption (RDX version)
Drag-and-drop restore	Integrated SQL and Exchange protection

Disk-Based Backup

AccuVault™

ALL-IN-ONE DATA PROTECTION IN DESKTOP AND 1U CONFIGURATIONS

2010 Product of the Year
Bronze Award for Backup Hardware
Searchstorage.com

2011 Finalist
Deduplication Product of the Year
Storageawards.com

The Tandberg Data AccuVault™ is a centrally-managed, LAN-attached, disk-based appliance that delivers automated data protection and disaster recovery with powerful data deduplication to smaller multi-server environments.

The AccuVault is a self-contained, centralized data protection regime that requires minimal time and expertise to deploy and manage. AccuVault's intelligence comes from AccuGuard Enterprise data protection and deduplication software. It simplifies protection of your Windows-based servers, virtual servers, and workstation clients making near-continuous protection easy and predictable. Built-in deduplication technology reduces file sizes prior to transmission over the LAN for maximum bandwidth and storage efficiency.

AccuVault is built on the familiar Windows® operating system and is particularly well-suited for protecting and reducing popular application files including Exchange and SQL. AccuVault also excels in virtual server environments such as VMware® and Hyper-V.

The AccuVault is designed to work seamlessly with Tandberg Data's award-winning RDX QuikStor, which offers the significant advantages of being disk-based, removable, durable, and highly reliable.

AccuVault™ Advantages

POWERFUL CENTRALIZED BACKUP

Centrally administer your data protection for consistency, reliability and ease of management.

COMPLETE DISASTER RECOVERY SOLUTION

Includes everything needed to create efficient, reliable and complete protection for your data.

GLOBAL, SOURCE-BASED, SUB-FILE DEDUPLICATION

Reduces storage and bandwidth requirements by eliminating redundancy inside and across files and clients before moving over the LAN.

EASY TO SETUP AND USE

Quickly start protecting servers and workstations—no special knowledge required. This network-attached solution provides simple installation and deployment using your existing infrastructure.

WINDOWS-BASED

Uses a familiar operating system to protect your Windows clients.

BUILT FOR RDX® QUIKSTOR™

Removable random-access disk-based media for off-site storage, disaster recovery and archiving.

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AccuGuard™

ACCUVAULT MODEL SUMMARY

AccuVault RDX 1TB: Designed to protect up to 5 servers and/or workstations: Compact desktop form factor, on-board touch-screen LCD jump-starts connection to the LAN, integrated RDX drive facilitates random-access, disk-based, off-site data protection and archiving, 1TB RDX cartridge included.

AccuVault 1U 4TB: Designed to protect 5-20 servers and/or workstations with high-availability features: RAID-5, hot-swap drives, redundant power, dual GbE, 1U form factor.

AccuVault 1U 8TB: Designed to protect 20-40 servers and/or workstations with high-availability features: RAID-5, hot-swap drives, redundant power, dual GbE, 1U form factor.

ACCUVAULT SPECIFICATIONS

MODEL	ACCUVAULT RDX	ACCUVAULT 1U 4TB	ACCUVAULT 1U 8TB
Form Factor	Mini Desktop / Tower	1U Rackmount	1U Rackmount
Memory	2GB DDRII RAM	2GB DDRII RAM	2GB DDRII RAM
HDD Capacity / Usable Capacity	1TB (1 x 1TB) / 850GB	4TB (4 x 1TB) / 2.5TB	8TB (4 x 2TB) / 5.2TB
HDD Configuration	Single/Internal	4 x hot-swappable, RAID 5	4 x hot-swappable, RAID 5
USB Ports	4 x USB 2.0 (Back Panel)	2 x USB 2.0 (Back Panel)	2 x USB 2.0 (Back Panel)
Removable Media Drive	Integrated RDX QuikStor Dock	Optional USB QuikStor Dock	Optional USB QuikStor Dock

RDX® QuikStation™

HIGHLY FLEXIBLE REMOVABLE DISK-BASED LIBRARY

Tandberg Data's RDX® QuikStation™ is a network-attached, removable disk library designed to provide a multi-cartridge platform for data storage, backup, archive and disaster recovery for SMB and SME environments. The RDX QuikStation is based on industry-standard RDX removable disk technology which combines the removability, durability and economy of tape with the random accessibility and performance of disk.

The RDX QuikStation provides 8 integrated RDX docks. Combined with Tandberg Data's 1TB RDX cartridges, the system provides up to 8TB of online capacity and unlimited offline capacity. It is compatible with major backup software and offers maximum adaptability with its ability to present itself as any one of the following configurations:

- **8 individual RDX QuikStor targets (addressable via 1 to 8 hosts)**
- **8 individual iSCSI disk targets (addressable via 1 to 8 hosts)**
- **Emulated StorageLoader™ (8 slots and 1 LTO-3 tape drive)***
- **Emulated StorageLibrary™ T24 (8 slots and 1-2 LTO-3 tape drives)***
- **Emulated StorageLibrary™ T40+ (8 slots and 1-4 LTO-3 tape drives)***
- **8 individual LTO-3 Tape Drive targets (addressable via 1 to 8 hosts)***
- **Emulated LTO autoloader or RDX autoloader**
- **2 hybrid configurations that offer a combination of tape automation and RDX targets**

Automatic software updates are available via the internet. For maximum performance and resiliency, the unit provides two bonded Gigabit Ethernet (GbE) ports with load balancing and failover capabilities.

PC PRO RECOMMENDED ★★★★★ OVERALL RATING

With its ease of management, groundbreaking flexibility and high performance, the RDX QuikStation is truly the "Swiss Army Knife" of data protection.

* LTO-3 Emulation does not limit the capacity of the RDX cartrige used.

RDX® QuikStation™ Advantages

CONFIGURATION FLEXIBILITY

The versatile RDX QuikStation provides users with 10 solutions for the price of one as the library emulates 10 popular storage devices, including tape, disk, automation or a combination, to match user choices for data storage, backup, archive and disaster recovery. It also provides removable data protection for any or many systems on the same network, and accommodates mixed cartridge capacities.

COMPATIBLE

RDX QuikStation is compatible with popular backup applications to integrate automated removable disk into existing protection plans quickly and easily. iSCSI connectivity provides for easy integration into existing Ethernet infrastructures.

MANAGEABLE

Built-in web-based management is accessible from any standard web browser from any location and offers user-friendly control through the front panel LCD with multi-language support of configuration, management, operation, status and security.

REMOVABLE DISK-BASED LIBRARY

Finally, a storage appliance that delivers the cost, durability and portability of tape with the random access and performance of disk. The device provides all the benefits of a virtual tape library with the convenience of rugged, pocket-size RDX disk cartridges that can be removed to add more capacity or for off-site storage.

BUILT ON RDX QUIKSTOR REMOVABLE DISK TECHNOLOGY

- **De facto industry standard**
- **10-year archive life**
- **Full backward and forward compatibility**
- **Extensive roadmap**
- **Capacity choices from 160GB to 1TB (HDD) and 64GB to 512GB (SSD)**

RDX QUIKSTATION SPECIFICATIONS	
Form Factor	2U Rackmount
Network	2 x 1 GbE: Bonded with failover and load-balancing
RDX Cartridge Compatibility	Backward & Forward: 160GB to 1TB and 64GB to 512GB (SSD)
RDX Slots	8 with individual LCD display
Capacity	Up to 8TB online, unlimited offline

DPS2000™ Series

SIMPLE, ROBUST NAS STORAGE

The Tandberg Data DPS2000™ NAS Series provides affordable business-class data storage, backup, file sharing and storage consolidation for small and medium-sized businesses. The flexible NAS solution provides you with the ability to extend storage and share data on a single cost-effective platform. Because of its versatility, the DPS2000 NAS can be configured as a file server or an iSCSI target server providing simultaneous file-level access and block-level storage for maximum disk utilization. File-level volumes can be used for file sharing, D2D backup and IP video capture.

INDUSTRIAL-GRADE FILE SHARING

Sharing your files has never been easier because the DPS2000 NAS solution provides the ideal platform for simple consolidated business-grade file sharing across Windows, Macintosh or Unix/Linux systems. Manage user quotas, accounts and groups via the integrated web console or through simple active directory integration for maximum security.

PRODUCT AWARDS

PC PRO

PC WORLD

ITespresso.de
Testurteil
sehr gut

Desktop

Rackmount

DPS2000™ Series Advantages

The DPS2000 NAS provides a simple and flexible way to add storage to a network. Each DPS2000 NAS can create up to 8 unique iSCSI targets allowing users to extend local server storage without system disruption.

POWERFUL DEDUPLICATION TECHNOLOGY

Tandberg Data AccuGuard data protection software delivers reliable, automated backup and recovery utilizing a powerful data deduplication engine designed to increase users' effective storage capacities by as much as 20 times. AccuGuard intelligently optimizes the data at the source resulting in drastically improved backup performance and network bandwidth. Data retrieval is simple and painless with AccuGuard's flexible file searching, drag-and-drop restore and point-in-time disaster recovery. With integrated Microsoft Exchange and SQL support, server protection has never been easier.

SCALABLE DESIGN

The advanced RAID configuration of the DPS2000 NAS allows users to increase capacity through physical HDD migration. During the HDD swap, all data residing on the legacy hard drives is seamlessly migrated to the newly installed drives without server downtime. In addition, the virtual appliance stacking feature enables multiple DPS2000 units to be stacked together for increased capacity as needed.

Most importantly, small and medium-sized businesses obtain reliable data protection and disaster recovery to safeguard their most important resources—their corporate data.

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AccuGuard™

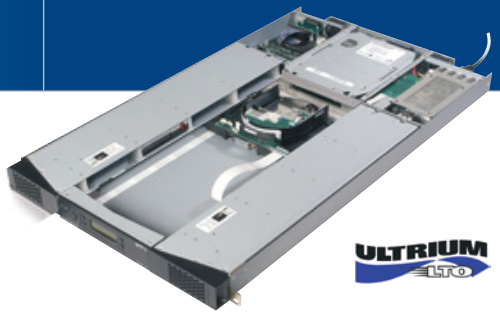
DPS2000 SERIES FEATURES

Reliability: Protects and consolidates your data economically and reliably in a compact all-in-one storage system.	**AccuGuard Technology:** Provides flexible file searching, drag-and-drop restore and point-in-time disaster recovery.
Compatibility: Integrates seamlessly into your existing environment, delivering high performance and up to 8TB of expandable storage.	**Better Management:** Reduces storage management issues by creating iSCSI target volumes in the GUI for dedicated file storage.
Security: Provides secure off-site data protection and disaster recovery with its robust remote replication capabilities.	**Saves Time and IT Costs:** Simple installation and user-friendly interface, including active directory integration.

DPS2000 SERIES SPECIFICATIONS

Form Factor	Desktop	1U Rackmount
Processor	Intel Atom D510 1.66GHz	
HDD Capacity	4TB	4TB or 8TB
USB	5 x USB 2.0 (Front: 1 Back: 4)	3 x USB 2.0 (Front: 1 Back: 2)
eSATA	2 x eSATA port (back)	

Tape Automation



StorageLoader™ LTO

ENTRY-LEVEL TAPE AUTOLOADER AT AN UNBEATABLE PRICE

The StorageLoader™ LTO offers scalable capacities up to 24TB* in a compact 1U form factor, providing the highest capacity, highest performance (up to 1 TB/hr*) and highest data density on the market. The StorageLoader LTO is available with either LTO-3, LTO-4 or LTO-5 tape drives, and a choice of SCSI, SAS or FC connectivity.

The StorageLoader LTO holds two 4-slot removable magazines storing a total of 8 data cartridges. Each magazine can be ejected using the front panel interface; in the event of a power failure there is an emergency magazine eject feature.

The StorageLoader LTO is easy to install, easy to use and is supplied with a barcode scanner, barcode labels and a rackmount kit. The StorageLoader LTO includes the latest security and data protection features, such as WORM (Write Once Read Many) to assist you with meeting today's data storage and archiving regulatory requirements.

The web browser-based remote management interface allows you to monitor, control, configure and diagnose problems from anywhere in the world. The StorageLoader LTO provides outstanding value for IT managers who require an easy-to-use, scalable, flexible, reliable and future-proof backup and data protection solution.

StorageLoader™ LTO Advantages

CAPACITY AND PERFORMANCE

Industry standard LTO drives offer high capacity and performance as the StorageLoader™ LTO continues to evolve in line with the LTO product roadmap.

EASE OF USE

Removable magazines, remote web management and an easy-to-use LCD interface for system monitoring, bulk loading and off-site storage.

DENSITY

A streamlined 1U form factor design to optimize valuable rack space, the StorageLoader LTO autoloader offers 8 slots and up to 24TB* of storage capacity with LTO-5.

RELIABILITY

Simplified robotics and cartridge loading, combined with solid metal construction and customer-replaceable units to minimize downtime and reduce the overall Total Cost of Ownership (TCO).

StorageLoader LTO-4

MEDIA COMPATIBILITY CHART

TAPE FORMAT	LTO-2 Drive	LTO-3 Drive	LTO-4 Drive	LTO-5 Drive
LTO-1 Ultrium Media	R/W	R		
LTO-2 Ultrium Media	R/W	R/W	R	
LTO-3 Ultrium Media		R/W	R/W	R
LTO-4 Ultrium Media			R/W	R/W
LTO-5 Ultrium Media				R/W

STORAGELOADER LTO SPECIFICATIONS

MODEL	LTO-3	LTO-4	LTO-5
Max Capacity - TB*	3.2 / 6.4	6.4 / 12.8	12 / 24
Max Transfer Rate - MB/s*	60 / 120*	80 / 160*	140 / 280*
Form Factor	1U	1U	1U
No. of Cartridges	8	8	8
Interface	SCSI	SCSI, SAS	SAS, FC
Media	LTO-3	LTO-4	LTO-5

* Native / Compressed, based on a 2:1 Data Compression Rate.

StorageLibrary™ T24

COMPACT TAPE LIBRARY WITH BEST-IN-CLASS PERFORMANCE AND RELIABILITY

The Tandberg Data StorageLibrary™ T24 is ideally suited for SMBs or departments looking for a cost-effective storage solution that provides them with just the right mix of reliability and scalability.

The Tandberg Data StorageLibrary T24 offers outstanding value for IT departments that need capacities up to 72TB* with LTO-5. The StorageLibrary T24 supports one full-height or two half-height drives and is available with either LTO-3, LTO-4 or LTO-5 tape drives, and a choice of SCSI, SAS or FC connectivity. The Performance on Demand (POD) feature allows users to easily add drives or upgrade to next-generation technology, and increase their library's performance when they need it.

The StorageLibrary T24 has a host of management and maintenance features, ensuring minimized down-time and ease of management. Using the browser-based remote management interface, administrators can remotely monitor, control, configure and diagnose the StorageLibrary T24 via the Internet from anywhere in the world.

Tandberg Data LTO tape automation solutions are compatible with industry standard, multi-sourced LTO media. To achieve optimum reliability, use of Tandberg Data LTO branded and qualified data cartridges is recommended.

StorageLibrary™ T24 Advantages

WIDE VARIETY OF DRIVES

Supports one full-height or two half-height drives and is available with a choice of SCSI, SAS or FC tape drives.

FULLY SCALABLE

Base unit is kitted with one or two 12-cartridge magazines that include one Import/Export (I/E) port and can be scaled up to a 24-cartridge system by adding an additional magazine. Double your performance by installing a second LTO half-height drive. Installing a second drive is easy and inexpensive and can even be installed without removing the StorageLibrary™ T24 from the rack.

BETTER PERFORMANCE. USER FRIENDLY

Delivers from 19.2TB to 72TB* of capacity at a transfer rate of up to 2 TB/hr*. Uses an intuitive, user-friendly LCD interface for configuration, status, diagnostic and help functions.

ADI SUPPORT

Featuring Automation/Drive Interface (ADI) that reduces cost and increases automation reliability to ensure enhanced end user simplicity.

FIELD UPGRADEABLE

Capacity on Demand (COD) enables easy expansion of usable capacity as data grows, by upgrading from 12 to 24 slots, or by adding or upgrading drives.

MEDIA COMPATIBILITY CHART

TAPE FORMAT	LTO-2 Drive	LTO-3 Drive	LTO-4 Drive	LTO-5 Drive
LTO-1 Ultrium Media	R/W	R		
LTO-2 Ultrium Media	R/W	R/W	R	
LTO-3 Ultrium Media		R/W	R/W	R
LTO-4 Ultrium Media			R/W	R/W
LTO-5 Ultrium Media				R/W

STORAGELIBRARY T24 SPECIFICATIONS

MODEL	LTO-3 HH	LTO-4 HH	LTO-5 HH
Max Capacity - TB*	9.6 / 19.2*	19.2 / 38.4*	36 / 72*
Max Xfer Rate - MB/s*	120 / 240*	160 / 320*	280 / 560*
Form Factor	2U	2U	2U
No. of Drives	2	2	2
No. of Slots	12 or 24	12 or 24	12 or 24
Interface	SCSI	SCSI, SAS, FC	SAS, FC

* Native / Compressed, based on a 2:1 Data Compression Rate.

StorageLibrary™ T40+ Series

PROFESSIONAL TAPE LIBRARY WITH ENTERPRISE PERFORMANCE, RELIABILITY AND FEATURES

The Tandberg Data StorageLibrary™ T40+, T80+, T120+ and T160+ tape libraries are professional backup and data protection solutions, providing maximum performance and scalable capacities up to 453TB*. With a choice of drives, capacities and supporting SCSI, SAS and FC connectivity, this flexible solution will meet many customer requirements.

Whether you are planning for data growth, upgrading to the next generation of LTO™ drive, consolidating storage, or integrating into a SAN solution, the StorageLibrary T40+ Series was developed with versatility and flexibility in mind to provide the maximum upgrade path to cater to all scenarios—while protecting your investment. The Tandberg Data StorageLibrary T40+ family is designed to provide:

- **Flexibility to mix SCSI, SAS and Fibre Channel in the same library with the ADI interface**
- **Flexibility over media with easy cartridge management**
- **Flexibility over operations via built-in partitioning that enables users to create 4x virtual tape libraries**

Tandberg Data LTO tape automation solutions are compatible with industry-standard, multi-sourced LTO media. To achieve optimum reliability, use of Tandberg Data LTO branded and qualified data cartridges is recommended.

STORAGE AWARDS THE STORRIES VIII

2011 Finalist

Tape-based Product of the Year
Storageawards.com

StorageLibrary™ T40+ Advantages

BUDGET FRIENDLY

With a base configuration price comparable to various autoloaders available on the market today, the Tandberg Data StorageLibrary T40+ offers users the lowest entry into true enterprise storage.

FUTURE-PROOF TECHNOLOGY

The Performance on Demand (POD) feature allows users to add drives or upgrade to next-generation technology, and increase their library's performance when they need it.

MANAGING EXPONENTIAL DATA GROWTH

The StorageLibrary T40+ family offers one of the highest density libraries in the industry, by scaling up to 40 tape slots in a 4U rack space. The default capacity of 24 tape slots can be increased via Capacity on Demand up to 40 slots. By stacking multiple T40+ units together, the T40+ family scales up to 151 slots in 16U rack space.

ENTERPRISE MANAGEMENT

The StorageLibrary T40+ Series has a user-friendly interface and includes an integrated barcode reader, remote management features, Export/Import slot, customer-replaceable units, drive hot swapping, audible alarm and real-time clock functions as standard.

For more configurations please visit www.tandbergdata.com

STORAGELIBRARY T40+ SPECIFICATIONS

MODEL	T40+	T80+	T120+	T160+
No. of Drives HH / FH	1-4 / 1-2	1-8 / 1-4	1-12 / 1-6	1-16 / 1-8
No. of Cartridges	24 or 40	77	114	151
LTO-4 Capacity - TB*	32 / 64*	61.6 / 123.2*	91.2 / 182.4*	120.8 / 241.6*
LTO-5 Capacity - TB*	60 / 120*	115.5 / 231*	171.0 / 342*	226.5 / 453*
LTO-4 HH Max Xfer Rate - MB/s*	320 / 640*	640 / 1280*	960 / 1920*	1280 / 2560*
LTO-5 HH Max Xfer Rate - MB/s*	560 / 1120*	1120 / 2240*	1680 / 3360*	2240 / 4480*
LTO-5 FH Max Xfer Rate - MB/s*	280 / 560*	560 / 1120*	840 / 1680*	1120 / 2240*
LTO-4 Interface	HH: SCSI, SAS, FC			
LTO-5 Interface	HH: SAS, FC FH: FC			

* Native / Compressed, based on a 2:1 Data Compression Rate.

Stand-Alone Tape Drives

LTO Tape Drives

LTO-5 (External)

A COST-EFFECTIVE SOLUTION THAT MEETS ALL YOUR BACKUP AND ARCHIVING REQUIREMENTS

Tandberg Data LTO tape drives offer a range of full-height and half-height drives suited for customers looking for tape storage devices that can meet any of their business requirements: Cost effective, reliable, scalable and providing maximum backward compatibility.

BENEFITS OF LTO TECHNOLOGY

- **Scalable performance characteristics to accommodate a wide range of system platforms—from a single server to the enterprise network—thus enabling future system growth.**
- **Eight-generation roadmap makes it a clear choice for users seeking to standardize on a tape technology, hence protecting their investment today and in the future.**
- **Easily integrates into current operating environments.**
- **Compliance testing ensures that LTO Ultrium drives and media cartridges conform to the specification to deliver data interchange among multiple vendors' products.**

Tandberg Data LTO drives ship with Symantec's Backup Exec QuickStart software, embedded media management for intelligent diagnostics and tape alerts.

The Tandberg Data LTO drives are compatible with industry standard, multi-sourced LTO media. To achieve optimum reliability, use of Tandberg Data LTO branded and qualified data cartridges is recommended.

Why choose Tandberg Data LTO Products?

Tandberg Data LTO products are stringently tested to conform to all LTO technology standards.

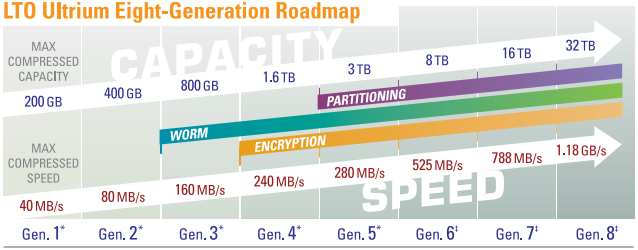
Tandberg Data offers a complete array of LTO solutions comprised of tape drives, autoloaders, and small and midrange libraries to cater to all business sizes. Tandberg Data LTO solutions are designed to grow with users' needs across all platforms and operating systems, protecting their IT investments.

The Tandberg Data LTO drives ship with Symantec's Backup Exec. QuickStart software, embedded media management for intelligent diagnostics and tape alerts.

MEDIA COMPATIBILITY CHART

TAPE FORMAT	LTO-2 Drive	LTO-3 Drive	LTO-4 Drive	LTO-5 Drive
LTO-1 Ultrium Media	R/W	R		
LTO-2 Ultrium Media	R/W	R/W	R	
LTO-3 Ultrium Media		R/W	R/W	R
LTO-4 Ultrium Media			R/W	R/W
LTO-5 Ultrium Media				R/W

LTO Ultrium Eight-Generation Roadmap



*Assumes 2:1 compression. ‡Assumes 2.5:1 compression (achieved with larger compression history buffer).
Source: The LTO Program. The LTO Ultrium Roadmap is subject to change without notice and represents goals and objectives only.

LTO-4 (Internal)

LTO TAPE DRIVE SPECIFICATIONS

MODEL	LTO-2 HH	LTO-3 HH	LTO-4 HH	LTO-5 HH
Capacity - GB*	200 / 400*	400 / 800*	800 / 1600*	1500 / 3000*
Transfer Rate - MB/s*	24 / 48*	60 / 120*	80 / 160*	140 / 280*
Speed Matching	12-48	30-120	30-160	47-280
Interface	SCSI, SAS	SCSI, SAS	SCSI, SAS	SAS, FC
Encryption	No	No	Yes	Yes

* Native / Compressed, based on a 2:1 Data Compression Rate.

DAT Tape Drives

BEST-VALUE TAPE SOLUTION FOR SMBs

DAT is the most successful tape backup technology of all time with more than 16 million DAT drives shipped, and with a current worldwide installed base of more than 6 million drives. Low hardware and media cost combine to make DAT the best value tape solution.

BEST VALUE FOR SMBs

DAT tape technology continues to meet the needs of the small and medium-sized business (SMB) market providing a reliable and low-cost tape backup solution. DAT remains the first choice for SMBs looking to protect low-end servers. Tandberg Data DAT tape drives are available with a range of capacities (72GB, 160GB and 320GB) and a choice of interfaces (SCSI, SAS and USB).

EASE OF USE

Tandberg Data DAT tape drives are easy to use and easy to install; customers can benefit from out of the box to backup in less than 60 seconds. Tandberg Data DAT family provides a balance of price and performance offering up to 320GB of compressed data on a single cartridge at speeds of up to 86.4 GB/hr*.

Tandberg Data offers a range of DAT models including internal, external and rackmount configurations. The low cost of ownership is provided through low-cost, durable DAT media. The two-generation backward compatibility provides a seamless upgrade path from older DAT drives. Tandberg Data DAT products are extensively tested to ensure they are fully compatible with a wide range of servers, operating systems and backup software.

DAT320 (External)

BENEFITS OF DAT TECHNOLOGY
Best Value: Low hardware and media cost combine to make DAT the best value tape solution.
Flexibility and Choice: DAT offers a range of capacities and a choice of interface configurations.
Ease of Use: Out of box to backup in less than 60 seconds.
Security: Protect your off-site data with AES 256-bit Encryption (DAT320 only).

DAT Drive Advantages

LOW POWER CONSUMPTION

DAT products have the lowest power consumption of any tape drive on the market, thereby reducing overhead costs and conforming to energy standards.

HIGH PERFORMANCE

DAT products are available in 72GB*, 160GB* and 320GB* capacities for a single cartridge. The Tandberg Data DAT320 is WORM and encryption compatible, offering transfer rates up to 86.4 GB/hr.* and a 50-sec. data access time.

HIGH SECURITY

DAT drives offer a high level of data security with AES 256-bit encryption (DAT320 only). Protect your small or medium-sized business, remote office or workgroup with a Tandberg Data DAT tape drive.

DAT320 (Internal)

DAT72 (Internal)

MEDIA COMPATIBILITY CHART

TAPE FORMAT	DDS3	DDS4	DAT72	DAT160	DAT320
DDS3	R/W	R/W	R/W		
DDS4		R/W	R/W	R/W	
DAT72 (170m) Media			R/W	R/W	
DAT160 (150m) Media				R/W	R/W
DAT320 (150m) Media					R/W

DAT DRIVE SPECIFICATIONS

MODEL	DAT72	DAT160	DAT320
Capacity - GB*	36 / 72*	80 / 160*	160 / 320*
Transfer Rate - MB/s*	3.2 / 6.4*	6.9 / 13.8*	12 / 24*
Interface	LVD, SCSI, USB	LVD, SCSI, USB	SAS, USB
Media	DAT72	DAT160	DAT320

* Native / Compressed, based on a 2:1 Data Compression Rate

Software

Tandberg Data AccuGuard™

AUTOMATED BACKUP WITH POWERFUL DATA DEDUPLICATION

Tandberg Data AccuGuard™ is Windows®-based backup software with powerful data deduplication designed to quickly and easily protect Windows-based servers, workstations and virtual machines. Ideal for demanding SMB and SME environments that require value, reliability and ease of use, AccuGuard is a completely automated data protection and disaster recovery solution that also facilitates lightning-fast data restoration at the file, folder or point-in-time level. AccuGuard's enterprise-class deduplication engine eliminates redundant data at the source for up to 20x savings in bandwidth and storage.

INDUSTRIAL-GRADE DATA PROTECTION AVAILABLE FROM TANDBERG DATA

AccuGuard software is included as an optimized solution with the award-winning Tandberg Data AccuVault, DPS2000 NAS solution or RDX QuikStor removable disk system.

A Powerful Backup and Disaster Recovery Engine

IMPROVED RESOURCE UTILIZATION

Tandberg Data's AccuGuard™ software uses minimal resources on host systems while employing powerful data deduplication to improve bandwidth and storage utilization.

FLEXIBILITY

AccuGuard's advanced features are available to almost any Windows-based environment. Administrators choose the granularity of protection and restoration and can even deploy a near-CDP (continuous data protection) solution. AccuGuard software is available with the RDX QuikStor removable disk system, the DPS2000 solution and the AccuVault multi-client data protection solution.

IDEAL FOR SQL AND EXCHANGE

AccuGuard server-based software includes special agents that optimize protection for Exchange and SQL making AccuGuard an ideal solution for Windows email servers and SQL-based applications.

MULTI-CLIENT ENTERPRISE EDITION

AccuGuard Enterprise Edition is designed to work with Tandberg Data's AccuVault data protection appliance and provides a completely centralized solution that adds global deduplication across multiple workstation, server and virtual clients.

ACCUGUARD SOFTWARE FEATURES
Automated Data Protection: Set it and Forget it data protection with automated verification that ensures every file is saved correctly and without corruption.
Integrated Microsoft SQL & Exchange Protection: Specialized protection plans provide full protection with optimized data reduction.
Drag-and-Drop Restore: Simplifies file recovery by eliminating the requirement to run a "Restore Job."
Simple User Interface: Removes the pain and frustration associated with complicated traditional backup software.
20:1 Data Deduplication: Increases effective data storage capacity for maximum value.
Point-in-Time Recovery: Allows the user to restore a single file or all files from a specific point in time.

Media

Tandberg Data Media

QUALITY ASSURANCE FOR YOUR TANDBERG DATA STORAGE SOLUTION

Tandberg Data media and storage products are the result of many years of joint development and continuous enhancements. This serves to provide the increased capacities, performance rates and cost efficiency demanded by our customers worldwide. The industry-leading quality and reliability of our products is acknowledged by leading international OEM customers.

Our partners depend on optimum data security for their mission critical data storage needs. Using Tandberg Data branded media with Tandberg Data branded storage products assures industry-leading performance and data security. Tandberg Data media is always the right choice because it is designed to work with our products. To achieve and maintain the maximum benefit of your Tandberg Data branded storage products, we recommend using Tandberg Data media cartridges with them.

MEDIA PRODUCTS AND SERVICES

Tandberg Data offers an array of media product and services to simplify data protection and compliance requirements. We offer custom and non-custom barcode labeling services and library media packs for the safe transportation and storage of off-site data. For more information, please contact Tandberg Data.

RDX Media

DAT Media

LTO Media

SLR Media

VXA Media

How should I store/maintain media?

TEMPERATURE AND HUMIDITY

To achieve maximum tape media life, users must ensure that media is kept under optimum temperature and humidity conditions. Tapes should not be exposed to temperatures exceeding 120ºF, such as under direct strong sunlight. The high temperature may cause the tape to melt, increasing chances of the adjacent layers of tape sticking together. Hence, tape cartridges are best stored below room temperature.

AVOID MAGNETIC FIELDS AND DUST

Tape media should be kept away from strong magnetic fields and dust to reduce the risk of data loss. The most common sources of magnetic field exposure are contact or long-term proximity to magnets such as cathode-ray tubes, transformers and speakers. Tape media may also become damaged if left out of its storage case, or inside a media drive for a long time, during which time dust is deposited in the media.

CLEAN THE TAPE DRIVE REGULARLY

Using a tape drive with a dirty head might cause data problems, hence regular cleaning is a must. When the tape drive is turned on, its built-in fan may cause small amounts of dust to enter the drive. Ideally, cleaning of the tape drive should be scheduled weekly.

CHANGING MEDIA

The life of each tape media depends on the way it is utilized and stored, as well as the condition of the tape drive. Hence, tape media should be replaced when necessary.

RDX MEDIA SPECIFICATIONS

MODEL	PART NO.	DISK TYPE	MAX XFER RATE
RDX 160GB	8458	2.5” HDD	60-100 MB/s‡
RDX 320GB	8536-RDX	2.5” HDD	60-100 MB/s‡
RDX 500GB	8541-RDX	2.5” HDD	60-100 MB/s‡
RDX 640GB	8592-RDX	2.5” HDD	60-100 MB/s‡
RDX 1TB	8586-RDX	2.5” HDD	60-100 MB/s‡
RDX 64GB	8674-RDX	MLC SSD	180 MB/s‡
RDX 128GB	8663-RDX	MLC SSD	180 MB/s‡
RDX 256GB	8664-RDX	MLC SSD	180 MB/s‡
RDX 512GB	8665-RDX	MLC SSD	180 MB/s‡

LTO MEDIA SPECIFICATIONS

MODEL	PART NO.	MAX CAPACITY	MAX XFER RATE
LTO-1	432630	100 / 200*	20 MB/s / 40 MB/s*
LTO-2	432744	200 / 400*	40 MB/s / 80 MB/s*
LTO-3	433216	400 / 800*	80 MB/s / 160 MB/s*
LTO-4	433781	800 / 1600*	120 MB/s / 240 MB/s*
LTO-5	433955	1500 / 3000*	140 MB/s / 280 MB/s*

DAT MEDIA SPECIFICATIONS

MODEL	PART NO.	MAX CAPACITY	MAX XFER RATE
DAT72	434001	36GB / 72GB*	3.2GB / 6.4GB*
DAT160	434002	80GB / 160GB*	6.9GB / 13.8GB*
DAT320	434003	160GB / 320GB*	12GB / 24GB*

* Native / Compressed, based on a 2:1 Data Compression Rate.
‡Transfer Rate will be determined by the performance of the RDX drive type.

Service and Support

World-Class Service and Support

Tandberg Data is a leading supplier of data protection solutions and provides best-in-class Service and Support to help your business stay up and running. Several optimized SecureService™ options that cover most technical issues to maximize your business continuity have been developed.

EXPERTISE AND ACCESS

Tandberg Data understands the importance of your data and the need to have it available 24 hours a day. Tandberg Data utilizes the internal expertise of our Technical Support Teams across the globe to diagnose your technical problems. Many technical problems can be fixed remotely even without the need for an on-site engineer, further reducing downtime. Should a remote fix not be possible, then one of our experienced engineers will arrive on-site within the required time and fix the issue. Our global support hubs carry spares to cover all eventualities and allow the engineers to bring the right spare parts for the job.

TANDBERG DATA SECURESERVICE™ AND ARS

SecureService options offer on-site service that covers service to your site within four hours of the call to next business day (NBD) attendance to the site. Options include on-site service Monday thru Friday, 9 a.m. to 5 p.m. or 7 days a week, 24 hours a day. Should this level of service not be required, you can choose our Advanced Replacement Service (ARS) which will ship replacement parts or units depending on the product, within 48 hours.

NO SECURESERVICE AGREEMENT?

Even if you don't have a Tandberg Data SecureService™ agreement, or if the warranty of your product has expired, Tandberg Data is able to offer out-of-warranty repair or a "one-off" site visit at a single visit rate to help fix the problem, including assistance from our Technical Support Team.

INSTALLATION SERVICE

Tandberg Data can also install your product with their own experienced service engineers who will unpack the product, install additional drives or accessories, fit your product into any rack system, and make sure that the product is successfully addressed. They will also troubleshoot any problems, demonstrating that everything is working properly. In addition, the Tandberg Data service engineers will provide hands-on training for first-time users of the equipment.

PRODUCT WARRANTY

Tandberg Data provides a limited warranty with every product sold. The limited warranty covers defects encountered in the normal use of the product during the warranty period.

PRODUCT REGISTRATION

It is important that all products are registered with Tandberg Data. Product registration allows you to stay informed when your SecureService agreement requires renewing and when Tandberg Data updates are made to firmware and products. Non registration will cause delays in on-site attendance.

SERVICE AND SUPPORT CONTACTS

REGION	PHONE AND EMAIL
United States and Canada www.tandbergdata.com/us	Tel: 1-303-417-7792 support@tandbergdata.com
Europe and Africa www.tandbergdata.com/emea	Tel: 00800 82632374 supportemea@tandbergdata.com
Asia Pacific and Middle East www.tandbergdata.com/apac	Tel: (+65) 6593 4700 supportapac@tandbergdata.com

For more information and local telephone numbers, please visit www.tandbergdata.com

www.tandbergdata.com

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TANDBERG DATA
Securing your Information